<110> INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE

<120> Mutated gene coding for a LAT protein and the biological applications thereof.

<130> B0184PCT

<140>

<141>

<150> US60/356.136

<151> 2002-02-14

<150> EP02/290610.1

<151> 2002-03-11

<160> 5

<170> PatentIn version 3.1

<210> 1

<211> 6307

<212> DNA

<213> Mus musculus

<400> 1 tatccatagt	cccagactta	acaggggctg	tcaggtcacc	ctgtgggtaa	gtccctgtct	60
tctgagcttg	gtaatctaga	aggagggctg	ctcttttctg	agtgagctgg	ttcagtatga	120
ctgtgactca	ccgtggtccc	ctggaagtcg	ctctcccagt	agttaagcct	gggagctggg	180
ggcctgtggt	gccctcagtg	ccctcggtcc	acacaggeet	tggcagagcc	tccttccagt	240
tctcccaccc	gggcatgggg	agggtaccgc	gggcctggtt	ggcacgtgtc	tcctttccta	300
gtggacgggc	tgcctcatcc	tgcagcctta	gaccettect	ccacacagtc	cctctgcctc	360



ctccccttc	ccacaactgg	gtgggggtga	gtgggcaggg	ggcaggctca	gcctgctgag	420
cagcctgatg	atttcctgcc	ctcaccacag	cttcctgtcg	cacgcggtgg	tgagcaggag	480
aggcaggcgg	ggagcaagaa	aggggcaggt	acagctgggc	acggggatcg	tgcagctggt	540
agctggggca	cgggccccag	ctctggctct	ggggcgagca	cctttccaga	gccaacactg	600
ctctcaactc	agtccagcaa	gagagggag	ccatccagcc	ccgaaaggat	acggctgcct	660
actgccgggc	ggatcccagg	ctggagcccg	cttggtccca	tacccctgct	gccactctgt	720
ctcgaggggc	tgcagtgcag	cagggcctgt	ggcaggtgct	ctgcagatgg	aagcagacgc	780
cttgagcccg	gtggggctgg	gcctcctgct	gctgcccttc	ttggtcacgc	tcctggctgc	840
cctgtgcgtg	cgctgccgtg	agttgccagg	taagtgggaa	gctttgcgga	actggatgat	900
gggtgggcgc	tccattggat	cctcataccc	tccccagccc	ctgcactctc	cactgtccct	960
acctgggccc	tgattgatgg	tggggggcct	gagtttcttt	gtccctggtg	caccccgatc	1020
ctgacttgtt	ggatttcttt	cctccagtct	cctatgacag	cacttccaca	gagaggtgag	1080
tgggaagccc	gtgtccctgt	gtgtcttccc	ttggttccac	tcaagggttt	ggggctgggg	1140
ccctcttggc	cctgtaccca	agctgtctct	ttcctgccag	tttgtaccca	agaagcatcc	1200
tcatcaagcc	acctcgtgag	ttcagtgtct	ctggccctcc	tcgagggttt	ttaagagtgt	1260
gcgtttgtcc	ttgttcacct	ttagctgtct	gaagggctgt	tccctggctt	gggatgggga	1320
aagtgggagc	ccccatgtct	gtctagggca	tgttattttg	gggtccattt	gtccttcgag	1380
gccttgatgg	ggggtgtctg	gagccatccc	tcaagcttca	ttctgtgtcc	tcagaaataa	1440
ccgtcccccg	aacacctgct	gtttcctacc	ctctagtcac	ttccttccca	cccctgaggc	1500
agccagacct	gctccccatc	ccgtgagtat	cccccaattc	cgtcccttgg	gtctactgtg	1560
cctctccacc	ttctaggttg	gggaggcgct	ttttcctggt	tgtcttgctc	ccagagtcct	1620
acctagacgt	aatctctgac	ctttggcttc	caggagatcc	ccacagecee	ttgggggttc	1680
ccatcggatg	ccatcttccc	agcagaattc	agatgatggt	aagggtgtag	ggcacaggag	1740
ggctttgggg	aggatgtaca	acctgagctg	atccagtctt	cttctccctc	tctctttgaa	1800
gccaacagtg	tggcaagcta	cgagaaccag	ggtigggtatg	gggtctgggg	tagtgggtgg	1860
ggtggggagg	ctggacctgt	ccaggtcgtg	ttaactctcc	tttctcacag	agccagcctg	1920
taagaatgtg	gatgcagatg	aggatgaaga	cgactatccc	aacggcttcc	tgtgagtggg	1980
tagaggagat	ctgaccgtgg	aagttgtgtg	ccctttatca	acttctcgtt	ccttcctttc	2040
ttccagagtg	gtgctgcctg	acagtagtcc	tgctgccgtc	cctgttgtct	cctctgctcc	2100
tgtgcctagc	aaccctgacc	ttggagacag	tgccttctct	ggtgagtcag	gctttctgtc	2160
tacctccctc	tgccatgtgc	tgccagctct	ccactcttgc	ctccctctca	cctccgtgac	2220

	4		3			
gattgccgcc	cttccattt	cctgtaga	cgttgggctt	cctgctcctc	atcacttccg	2280
actgtcttgt	ttttccttcc	acctttgctc	cttcgtctct	gttgtctaag	aaatttcctg	2340
actctttttg	aaccctgcca	ttgaaatttc	atttctcggc	tgggtgtgag	ggcctacgat	2400
cccagcatca	ggaggcagtg	gcaggagggt	tgaatttgag	gctagcctgg	gctacatagt	2460
gataccctct	cttcgaaaac	caaaacagca	cgacgatcaa	caaaaagaaa	acaaaagaat	2520
ttatttctct	tatctgaaag	teccectece	cttttttggc	gtctcggttc	tttttgtata	2580
gtacactgtt	gtttcttgga	agcaatatca	tctaatgtat	ctataagaac	tttgattaca	2640
tagccgggtg	gtggtggcgc	acgcctttaa	ttccagcact	cgggaggcag	aggcaggcgg	2700
atttctgagt	tcaaggccag	cctggtctac	agagtgagtt	ccaggacagc	caggactaca	2760
cagagaaacc	ctgtctcgaa	aaaacaaaac	aaaacaaatt	ttgattacag	attgtttctc	2820
tctgtgtctc	tatccctctc	tggttctgcc	cgtctctctg	tatctctgcc	cgtctctctg	2880
tatctctgcc	cgtctctctg	tatctctgcc	cgtctctctg	tatctctgcc	cgtctctctg	2940
tatctctgcc	cgtctctctg	tatctatctc	tgcccgtctc	tctgtatctc	tgcccgtctc	3000
tctgtatctc	tgcccgtctc	tctgtatctc	tgcctgtctc	tctcacacac	actcactgaa	3060
gatttattct	gcgtaccaca	tggtcgttgt	ttctcttggg	ctgcttttct	ctgctttggt	3120
ctttctcctt	ccttgagctt	ttctcaagtt	ctggtgatct	tcagttttct	atcctcttat	. 3180
ctctgtatag	catgagtatc	ccttacctga	aacacttcaa	tacagatttg	ggaatattta	3240
taaacatata	ataaattctc	ttggggatga	aactcaagat	aaaacatgta	attaatttat	3300
tcatgtttta	tacaaaccat	atatgtaata	tatacacagt	ctgaagatag	gtttttgttt	3360
tgtcttagtt	ttattggcat	agagcgtcat	tgtatagtcc	tggctgtcct	ggaacttgat	3420
atctagacca	ggtagactca	aactcaaatt	aaacgtgtag	gttaccatgc	tcggtcttta	3480
aggtagttct	atgcaaattt	taattaatct	tttgtatgaa	atagaagttt	catgaaattt	3540
tccatttgtg	gtatcgcacc	agtatgaaaa	ggttttggat	ttcggaatat	gatgaatttt	3600
ggagttttaa	aaggaacacc	caaccttctg	tatttaccct	agactattat	gtctgtactc	3660
tggctctgtt	ttgtttgaga	gagaatctca	ctgtagagtc	ctggctgccc	tggaactcac	3720
tttgtagatt	aagtatggcc	tttaactcca	gttgcctctg	gcttctgagt	tctgggatta	3780
tatggggtta	aagacgtatc	cctcttgttc	cacttggttt	ttgttgttgg	tggtttgttt	3840
atttagcttt	tttttttca	gtttttctcc	ctcaatacag	cttttctcta	tgtatccttg	3900
gctgtcctag	acctcactct	gtagaccagg	ctgtccttga	actcagaaat	ctgcctgcct	3960
ctacctcctg	agtgctggga	ttaaaggcac	gtgccaccac	cacctggctc	tcttgctcca	4020
tttgtaaccc	actgactata	caatgagtcc	ccatgtcaat	aaaaccaaga	caaaacaaaa	4080
acctagcttc	agactgcgta	tatatgattt	atataaacca	tgcatgactt	aattccgtgt	4140

aatttgtcat ttctctcctg aaccccagac tgtttgagtg atcccttcct tccatccgtc 4200 ctggtctctc gctcctcatt tcctggttat gtctgctgac ttttgctagg gatttaggga 4260 gccaatgcag caaacttgta atggtaaaag gatcattgct aggggcaaaa tgactcattt 4320 taatttcagt gagagactct gtctcaaaga actatggtgg aatggctaaa gcctccatgt 4380 gctcctgagt gtgtgcagtg gcataacaca cagagaggta ctaagagaac tactgttaac 4440 tgaggagcaa ctctatgccc tcgtggtgtg tacagctcat tagacctcac agttcgtggg 4500 tgetetgetg acceptaccet ettecectee tgteceteae atetetetet gtactgtete 4560 tetgtatggt atgctagagt ttatttattt acttaaattg atacagtett getgttgtga 4620 tgtccagtct gtcttgagct caagttagcg cctgcctccc gtcttctgag accacagcct 4680 ggctcaaggt tgctagtaat tggaacaacg gtagcacata gtgtattgca ggctctgttt 4740 tacaatttat tgtttattcc tcactctagt ccttccaggc aggtcctgtt atgaacctca 4800 4860 ttctacagac taggaaactg gggcagggag catttaggtg acttatctga ggttagatag ttgcttagtg ctgggactga ggtttgagcc agtgtatttg gctcagcttg tccacatgcc 4920 catacagaaa ccaggcaacc atgaaaccag aaagcaaaaa gctgtgtagc attgtgagtg 4980 acctttgtgg gcccaggaag gtgagggcaa gagctgataa cattgagaga ccaacaggtc 5040 tgagaagagg ggatgccaac tagaccaagt gtgccacttc ttcacagatc accaaggtct 5100 etgeactetg ageteettgg agecetgete tecageetea etgeetgagt eetgtattgt 5160 ctctgttcca ttcccccaga ggctctggtc ctggctctcc atccacctcc atggcccttg 5220 ccctgcccag gcttcttctc ccctcgcttt tcctgaatat tctctctata ttgtgagtct 5280 gcctgggggt tgtgttagga gacttagatg tctgagccgg gggtgggagg tgtctctggg 5340 gaacagtgcc tggctgagtg tctgctaata actgtactgc aatggctatt ctacagtgga 5400 gtcgtgtgaa gattacgtga atgttcctga gagtgaggag agcgcagagg cgtctctggg 5460 taggtgactc tgcactccat gcatggccca tagcctctcc ctaccctctg catggcctgc 5520 cetteacace actgtecetg etggtetgte eccacagatg ggageeggga gtatgtgaat 5580 gtgtccccag agcagcagcc agtgaccagg gctgagctgg gtgagtacca aggtgtaagg 5640 gggcagaggc tggggagcag ccttgagtag agagtctgta ggctgaacgg cagtctccct 5700 ctgtttttcc ctctcagcct ctgtgaactc ccaggaggtg gaagacgaag gagaagagga 5760 aggggtggat ggagaggaag ctcctgacta tgagaatctg caggagctta actgaaagcc 5820 tagtgagtgg tetetgtece egececeace ttgggeette tetecaggae eccecteetg 5880 cctatcccca gtggttaggc acattctttg tggctctgga tacccgggtg gcttcatgac 5940 tgtcctccct gtctcccctg ccctgctgtg tttcagctgc agctgtctgt cctgaaactg 6000

WO 03/06	8968			•	PCT/II	B03/01044
gacttocto	g ggtgtcgcti	aggatoco	5 atttgacctc	tgccttgcca	cagocegaga	6060
	aacttattgt					6120
	cctgagaatg					6180
	agtcgtcgtt		-			6240
	gggacagggt					6300
atcatcc	. gggacagggt	cccgccacgc	cgacoaaggo	cygcoccyca	oocgcgggcg	6307
attattt						0307
<210> 2						
<211> 61						

<212> DNA

<213> Mus musculus

<400> 2

agccagcctg taagaatgtg gatgcagatg aggatgaaga cgactatccc aacggcttcc 60 61 t

<210> 3

<211> 20

<212> PRT

<213> Mus musculus

<400> 3

Pro Ala Cys Lys Asn Val Asp Ala Asp Glu Asp Glu Asp Asp Tyr Pro

Asn Gly Phe Leu

<210> 4

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> primer

<400> 4		
atagcaagct	acgagaacca	agat

24

<210> 5

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> primer

<400> 5 gacgaaggag caaaggtgga agga

24

<210> 6

<211> 22

<212> DNA

<213> artificial sequence

<220>

<223> primer

<400> 6 cccagaggca aaccctctga ag

22

<210> 7

<211> 24

<212> DNA

<213> artificial sequence

<220>

<223> primer

<400> 7 tcgaattcgc caatgacaag acgc

<210> 8

<211> 21

<212> DNA

<213> artificial sequence

<220>

<223> primer

<400> 8 ggagacttag atgtctgacc g

<210> 9

<211> 21

<212> DNA

<213> artificial sequence

<220>

<223> primer

<400> 9 gacagaccag cagggacagt g

124

21

21